

[0021] In accordance with the invention, a through hole is provided in a sealed resin case, and the through hole is covered with a water/oil-repellent film, which is bonded to the resin case when the resin case is injection-molded. The resin case comprises a box and a lid covering an opening of the box, and the through hole is provided either in the box or in the lid. The water/oil-repellent film is a porous film and is preferably bonded to the resin case by causing the molten resin to enter the pores of the porous film. In a preferred embodiment, the water/oil-repellent film is made by laminating a backing comprising a thermoplastic material and a porous film, and the backing is melted so that it is bonded to the resin case. The joint of a periphery of the through hole and the water/oil-repellent film preferably form a U-shaped cross-section.

[0022] In accordance with another aspect of the invention, a die assembly for manufacturing a resin case comprises a first die having an inner surface and an annular protrusion on its inner surface, and a second die having a cylindrical protrusion receivable in the annular protrusion. A water/oil-repellent film is fitted into a recess surrounded by the annular protrusion of the first die, and when the first and second dies are closed the resin used to form the resin case is injected between the two dies. In a preferred embodiment, a pocket is provided either in the recess of the first die or in an end face of the protrusion of said second die, or in both the recess and the end face.

[0023] Since the through hole provided in the resin case of the present invention is covered with a water/oil-repellent film, communication of air is provided between the inside and outside of the case but moisture, etc. in the atmosphere do not enter the case. Also, since the water/oil-repellent film is bonded to the resin case when the resin case is injection-